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ABSTRACT

The Cluster program, funded under Title I of the 1965 Elementary Secondary Education Act, is designed to be a school within a school in which the students receive the benefits of small class size, psychological support, and curricular innovation. The program this year was expanded to include both ninth and tenth year students. The two clusters of 150 students each receive instruction from five teachers in classes where maximal size is 30. The cluster students also receive the services of paraprofessional aides, guidance counselors, and a school psychologist. Laboratory and skill centers in reading and mathematics were specially developed for the program. Curriculum developers produced new materials in mathematics, science, reading, and social studies. In addition the program inaugurated this past year its phasing program in which students may select their own programs from a variety of courses lasting approximately four weeks each. Evaluation procedures included: (a) collecting and analyzing all record data information available, (b) analyzing records and documents produced by the cluster program staff; (c) interviewing teachers, counselors, etc.; (d) administering questionnaires to cluster students and faculty; and, (e) observation of classroom activities. (Author/JM)

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FINAL REPORT OF THE EVALUATION OF THE

1970 - 1971

BENJAMIN FRANKLIN CLUSTER PROGRAM

PROGRAMS AND PATTERNS FOR DISADVANTAGED HIGH SCHOOL STUDENTS

Evaluation of a New York City school district educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10), performed under contract with the Board of Education of the City of New York for the 1970-71 school year.

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BENJAMIN FRANKLIN CLUSTER PROGRAM

PROGRAMS AND PATTERNS FOR

DISADVANTAGED HIGH SCHOOL STUDENTS

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BENJAMIN FRANKLIN HIGH SCHOOL CLUSTER PROGRAM

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EXECUTIVE SUMMARY

The Cluster program at Benjamin Franklin High school commenced operation during the 1967-68 school year and has now completed its fourth year. The Cluster program is designed to be a school within a school in which the students receive the benefits of small class size psychological support and curricular innovation. Originally composed of ninth year students, the program this year was expanded to include tenth year students. The two clusters of 150 students each receive instruction from five teachers in classes where maximal size is thirty. The cluster students also receive the services of para-professional aides, guidance counselors and a school psychologist - laboratory and skill centers in reading and mathematics were specially developed for the program. Curriculum developers produced new materials in mathematics, science, reading and social studies. In addition the program inaugurated this past year its phasing program in which students may select their own programs from a variety of courses offering lasting approximately four weeks each.

Evaluation Objectives

The evaluation attempted to assess:

1. The quality and scope of the new Phasing program
2. How well this program was received by faculty and students
3. Faculty attitudes toward cluster students and to the total cluster program
4. Perceptions of the students to themselves and toward different aspects of the cluster program.
5. Student data regarding attendance, mathematics and reading and achievement scores when compared to samples of students also attending Benjamin Franklin High School.

These evaluation objectives were achieved by (a) collecting and analyzing all record data information available (b) analyzing records and documents produced by the cluster program staff (c) interviewing teachers, counselors, cluster program psychologist and the social worker (d) administering questionnaires to cluster students and faculty (e) observation of classroom activities.

The main findings of this evaluation were:

1. Staff members feel their participation in the program has increased their understanding of problem pupils and feel students motivation to learn and attitudes toward themselves have improved because of it.
2. The cluster program has provided curricular innovation (notably the Phasing program), but communications with the rest of Benjamin Franklin High School concerning curricular innovations can be improved.

3. While most teachers feel satisfied with curriculum evolvement, the curriculum developers often feel inhibited in their innovations.

4. Students view their cluster teachers as having more interest in their problems and counselors as giving more help than the teachers and counselors previously encountered.

5. Students show a favorable attitude toward the curriculum of the Cluster Program and react favorably to the idea of working independently and selecting their own course work.

6. Absenteeism for cluster students increased from an average of thirty-six days in 1969-70 to forty-eight days for the 1970-71 school year.

7. The cluster students gain an average of .5 grade equivalent units in reading and 1.0 grade equivalent units in mathematics during the seven month period from October to May.

The major conclusions of this evaluation are:

1. The Cluster Program continues to be successful in promoting student-faculty rapport and is decreasing student alienation from school.

2. The Phasing Program has been an extremely successful innovation. Faculty and student response have been most favorable. It has been successful in its aim of increasing student motivation and responsibility in learning.

3. There is inadequate communication between cluster and non-cluster departments at Benjamin Franklin High School.

4. Communication within the departments of the Cluster Program regarding structure and curriculum planning is somewhat lacking.

5. Psychological services are generally satisfactory but suffer from under-staffing.

6. Programs in individual departments within the Cluster Program are successful, are consistent with program goals, and are running well. There is need however, for more definition of skills to be developed and objective measurement of progress especially in the areas of science and social studies.

7. Attendance patterns for those students in the Cluster Program are slightly better than those for other students in the same school, but could be improved.

8. Achievement scores show cluster students made more progress in reading than the non-cluster students.

9. Achievement scores show that students who were in the Cluster Program last year but transferred to the College Bound program this year did not continue to make the same gains in reading as those students who stayed in the Cluster Program.

RECOMMENDATIONS

The major recommendations of the evaluation staff of Teaching & Learning Research Corp. are:

(1) The Cluster Program has, in four years, proved itself to be effective in meeting the educational and emotional needs of its students. Strong consideration ought, therefore, be given to the idea of expanding the program both horizontally to the full ninth and tenth years and vertically into the eleventh year.

(2) The Phasing Program should be continued along the same lines.

(3) Counseling and psychological services should be continued at present levels and if possible expanded so that more students may benefit from their services.

(4) Student attendance ought to be encouraged either through parent involvement in the program and/or more coordinated efforts between the Attendance Office and the Social worker.

CHAPTER I

BENJAMIN FRANKLIN HIGH SCHOOL CLUSTER PROGRAM

BACKGROUND

The Benjamin Franklin High School Cluster Program has been well documented in previous reports. (1)With a history of non-attendance, poor achievement, drug use and student apathy, Benjamin Franklin High School represented much of what was wrong with urban education. Of the more than one thousand students who were enrolled as freshman in 1961, fewer than ten obtained academic diplomas in the spring of 1966. While teacher turnover was high, the school suffered from the additional effects of the adverse social, cultural, economic and emotional experiences of its students. To mitigate these effects and to bring the students a more enriching educational program, the Franklin Improvement Program Committee (FIPC) was formed in October 1966.

The FIPC is a school-community-university committee which meets once a week and is the ultimate policy setting body of the school. The FIPC comprises parents, teachers, administrators, students and representatives from community organizations and from Teachers College, Columbia University. One of the first actions of the Committee was the approval and introduction of the Cluster Program at Benjamin Franklin High School in the Fall of 1967.

The Cluster Program was a coordinated effort on the part of a large urban inner-city high school to combat the negative effects of bigness and impersonality. Based on a "mini" school concept or clusters, a group of the incoming freshman class would be placed in a compact, educationally self-sufficient unit. The increased interaction with teachers and school personnel would, it was felt, alleviate much of the alienation so prevalent throughout the general student body as well as increase academic performance.

In its first year there were four clusters of twenty students each. The staff taught four periods daily, was relieved of all building assignments and met with other cluster teachers each day. While the program was hampered by certain physical and personnel difficulties, the program was considered moderately successful and extended into the 1968-69 school year. The biggest concerns seems to have been in the area of curriculum development.

During the second year significant progress was made in curriculum innovation in science, social studies and mathematics. It was clear, however, at the end of the year that a structural reorganization was needed. The curriculum developers who worked in different clusters were spread too finely to concentrate on specific curriculum development for each cluster. In addition

(1) cf. Benjamin Franklin Cluster reports 1969-70, March 1971

class size was generally too small. Therefore the size for each cluster class was increased from twenty to thirty students in order to insure a continuing enrollment of fifteen to twenty students.

In the 1969-70 school year, the number of clusters was reduced from four to two but class size was increased from twenty to thirty. Except for the mathematics and reading classes, each cluster operated as a separate unit. The mathematics and reading teachers worked as a team and created a mathematics and reading resource center. The centers offered open classroom, individualized instruction and a team of adults in the classroom, including both the teachers, the curriculum developer, and a para-professional educational assistant. It is this team model which formed the basis for the cluster proposal for 1970-71. It was at this point that the cluster program was extended to the tenth grade for those cluster students who wished to remain in the program.

CLUSTER PROGRAM 1970-71:

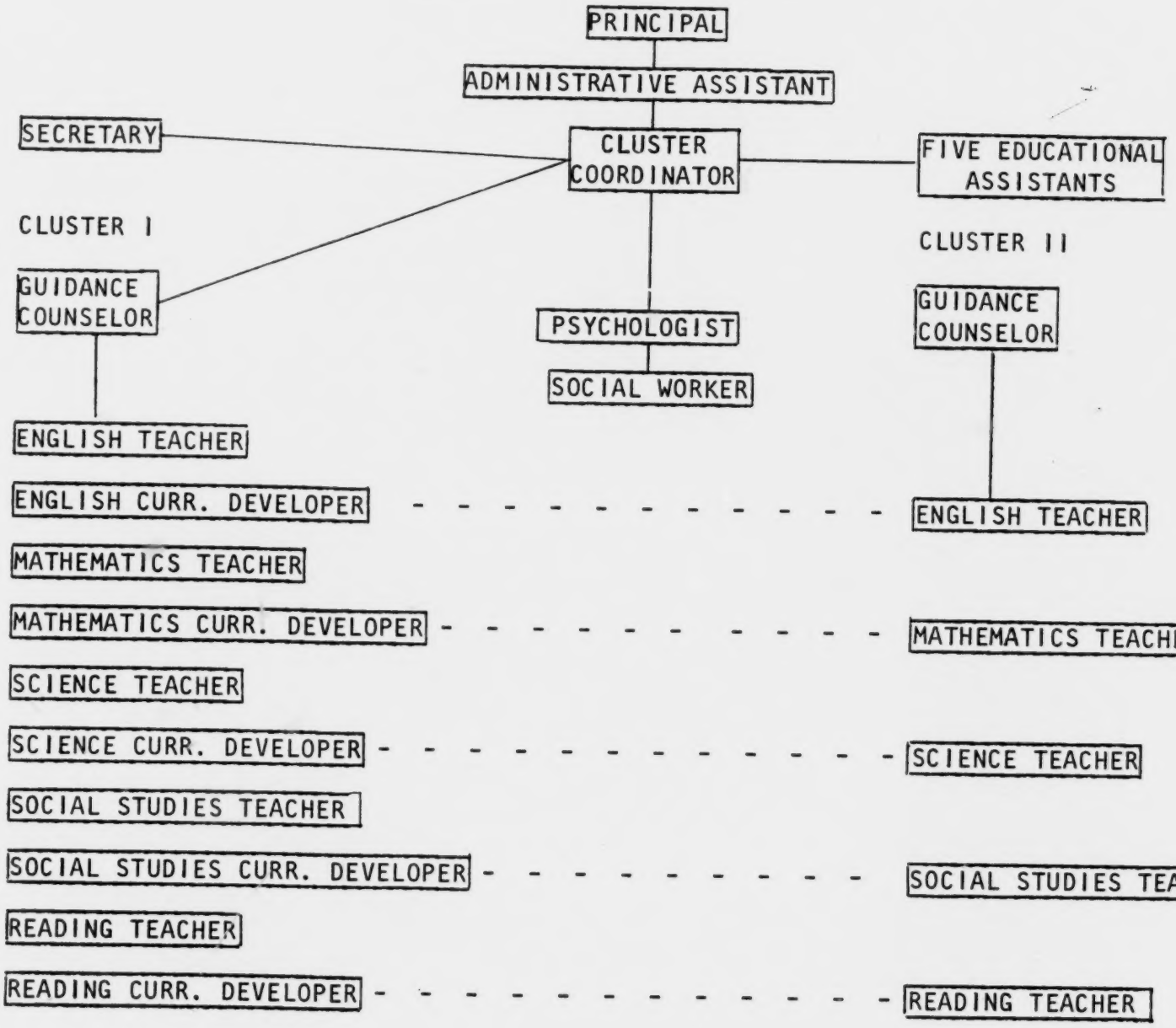
There were, as in 1969-70, two clusters of 150 students each. One cluster consisted of ninth grade students selected on the basis of their reading scores, grades and attendance records, and recommendations from eighth grade guidance counselors. There were five classes of thirty students each. The second cluster consisted of 150 tenth grade students who were in the 1969-70 year program and expressed an interest in staying in the program and because they ranked low in their ninth year. There were five classes of thirty students as well.

The program had available five special classrooms which were used for teaching and as resource centers. In order to obtain the exclusive use of space in the overcrowded school (three overlapping sessions) the ninth and tenth grade clusters were on different schedules during the first term. This did not allow for a common meeting time for the teachers in the two clusters. Other staff, such as the curriculum developers were able to meet with both groups of teachers. On the other hand, during the second term end-to-end sessions were instituted and common meeting time was then established.

The cluster staff included a coordinator; five full-time curriculum developers, in mathematics, science, English reading and social studies; and ten teachers, two for each subject. There were also five educational assistants, a social worker, two guidance counselors and a psychologist. The program also had the services of an art teacher several times a week from another department.

The organization of the Cluster Program for the 1970-71 school year is displayed in figure 1.

Figure 1. ORGANIZATION OF THE CLUSTER PROGRAM



The program experienced some difficulty in hiring suitable staff. Because of the demands placed on teachers in terms of extra time, work and responsibility and their ability to work as a part of a group; candidates were carefully chosen. Therefore it was necessary to go beyond the normal criteria such as seniority and certification provisions in selecting candidates. Last year two staff members could not be hired until November because they did not meet certain certification requirements. Recruitment procedures could apparently have been facilitated if the coordinator had latitude in the selection of appropriate personnel, and/or if teachers selected for the program were assigned on a priority basis.

The program objectives for 1970-71 as set forth in the original Board of Education proposal were:

A. Primary Objectives

1. Help incoming students make a satisfactory adjustment to school.

2. Improve attitudes toward self and toward learning.

3. A three-grade rise in mathematics skills, spelling ability, vocabulary knowledge and reading rate within one year.

4. A 25-50% improvement in attendance within four months.

B. Secondary Objectives

1. Reduce dropout rate

2. Increase teacher understanding of problem pupils.

One of the efforts developed in order for the program to accomplish these objectives was the concept of Phasing.

PHASING PROGRAM

In February of 1971, the cluster program instituted an innovation in the structure and content of its curriculum. This change - known as "PHASING" - has been received very favorably by both faculty and students and is seen as one of the strongest points of the program.

The semester is divided into 4 phases. Each phase consists of 30 courses for each grade running approximately 4 weeks each. In each phase the 30 courses are divided into 6 blocks of 5 or 6 courses each. Each block usually offers science, mathematics, English and human relations courses. A student must choose one course from each block. Most courses are repeated during the 4 phases so the student has a chance to take what he wants. This is necessary because a course closes after a certain level of registration.

The courses are described in a catalog given to the students at the beginning of each phase. An attempt is made to present courses relevant to student needs and interests. The descriptive language is very understandable to the students. Below are two pages from the ninth Grade Phase II catalog

representing two blocks (L and K) of courses:

Figure 2.

L 313 POLLUTION--DOES IT REALLY EXIST?

Scientifically, what does becoming polluted mean? What about pollution makes 'nature' unbalanced?

We will try to answer these questions by doing experiments and applying what is found out to what we see in the environment.

L 215 WHAT'S THE SAME? WHAT'S DIFFERENT?

Using Attribute Blocks and People Pieces you will look at the properties of objects and the mathematics behind them. The materials will be used to show the ideas of mathematical set theory.

L 201 PROGRAMMED GEOGRAPHY AND REFERENCE SKILLS

Continue or begin working individually in:

Book 1: The Earth in Space
Book 2: Continents and Oceans
Book 3: Latitudes and Climates.

Extra added attraction: study skills work in graphs, diagrams, charts and maps.

L 361 NEWSPAPER

Wanted: News, sports, fashion, jokes, readers' questions, music, drawings.
Wanted: reporters, interviewers, photographers, artists, editors.
Wanted: investigation, fabrication and creation.
Contract: contribute to and reproduce a newspaper every two weeks.

L 362 LANGUAGE SCIENCE

Problem: How to put a good sentence together.

Solution: Learn about word order, sentence patterns, substitution and transformation through exercise and practice.

Conclusion: Practice makes perfect sentences.

**L TIE DYING

Have you ever seen those tie dyed shirts? Do you want to make one? In this course you will learn how to tie dye materials so they have many different colors and patterns. The dying is done by tying knots in the material and dipping it in colored dyes. You will dye shirts, pants, scarves and pieces of material.

This course is given at the Cooper-Hewit Museum on Thursday mornings from 9 - 11. The course will last for two phases, beginning March 18 and ending in six weeks. You may skip taking an L course if you sign up for this course.

H 201 ALL AROUND THE TOWN

Each class will be a visit to an unusual cultural center. We will see special art exhibits, community museums and live music, theater and dance.

Contract: attendance on all visits and brief reports on each one. One or two classes may meet on a Saturday afternoon or a weekday evening.

M 361 IMPROVISATIONS

We will be involved in acting without a script. Each class session will consist of doing an improvisation and then discussing it. The only requirements are:

1) to keep a diary of the class activities,
2) to participate in the improvisations.

M 362 CRAFT WORKSHOP: CREATIVE KNOT TYING

Make belts, chokers, headbands and purses using string, beads and knots in ancient craft of Macrame. (See some examples in room 362.)

M B60 RAP SESSIONS

We will discuss anything the group decides upon and stay with it as long as we wish. All decisions will be made by the students. Students taking the course contract to: (1) speak openly to other group members about the subject being discussed; (2) discuss with the other group any topic the group chooses: (3) share his feelings with the group; (4) be totally honest; (5) discuss his problems with the group; (6) keep what is said confidential and personal.

M 215 WORKSHOP IN MATHEMATICS

Fractions, dividing, per-cents, multiplying, decimals and any math skill you can think of. Electric calculators, hand calculators, tape recorders and expert teachers available to help you add better than an adding machine and do math computation better than a computer.

M 313 LABORATORY SCIENCE

1) How are some animals built to live where they do: You will dissect two different animals and compare their different parts on how they work.

2) Do all metals react in the same way with acids? You will find out by doing exercises with acids and different metals.

3) If you mix a glass of hot water ($70^{o}F$) with a glass of cold water ($20^{o}F$) what will be the temperature of the mixture? You will do this exercise and find out.

From the catalog the student works out a schedule of courses with the Guidance counselor. The counselor offers assistance, but as the program aims at developing motivation to learn and independence in decision making, the final choice is generally left to the student. Therefore, if a student chooses most of his courses from one subject area, he is permitted to do so.

The program not only gives the students a chance to take courses in what they are interested, but also gives the cluster faculty a chance to teach courses that particularly appeal to their interests or talents. An administrator of the program, for instance, teaches a course in Photography; and a teacher whose hobby is pottery teaches a class in pottery at his studio. Different phase courses are taught by the coordinator, two guidance counselors the psychologist and the social worker.

Another unique feature of the phasing program is the contract system. In many of the courses, the student makes a contract with the teacher which states specifically what the student must accomplish in order to pass the course. As the phase progresses, he checks off what he has completed. The grading system is PASS, NO CREDIT (NC) and MASTERY, based on the contract. If the student does what he has contracted to do, he receives a PASS grade; if he does extra work (which is also defined in the contract) he receives a MASTERY. NO CREDIT indicates he has not fulfilled the terms of the contract. In courses oriented to the individual needs of the student - some of the math courses and reading laboratory, e.g. - the student and teacher work out a contract geared to the particular student and teacher work out a contract geared to the particular student and the student works at his own pace.

The phasing program was mentioned by (almost) every faculty member as a feature of the cluster program they were most satisfied with. And judging from student reaction, it has succeeded in stimulating and motivating the students and in providing them with greater responsibility for their own academic development.

CHAPTER II

CLASSROOM OBSERVATIONS

Perceptions of a Mathematics Consultant

The Mathematics Consultant visited Benjamin Franklin in the Fall of 1970 and the Spring of 1971. He evaluated the program as to its success in fulfilling within the classroom its primary goals, viz.:

1. preparing students to function in the "regular program" by reinforcing and extending arithmetic skills;
2. assuring each student a maximum of individual attention and opportunity for experiencing success through individual instruction.

The consultant also evaluated the functioning of the department staff with respect to these goals.

In the Fall he found the following: Role definitions among the mathematics faculty seem clear. The teacher role in mathematics is basically an instructional and remedial one; they organize and check activities for each student. They did have some part in planning and developing curricular materials within the program. The program coordinator saw his role as "facilitator of learning" and felt it was important for him to spend considerable time in the classroom. He had rapport with students and staff. The para-professional added to the staff contributed greatly to the realization of the goal of individualized instruction. He provided remedial help on an individual basis, and often functioned to bridge cultural and language barriers between teachers and students. His rapport with the students was excellent.

The Mathematics Consultant found the individualized instruction format the strongest point of the mathematics program. Students preferred it 4 to 1 over the traditional approach. Projects were well organized, boredom and disciplinary problems were minimized as compared to the traditional class, and students knew what activities they were expected to complete. However, the consultant suggested a greater emphasis on cooperative group activity and the incorporation of "instructional opportunities that encourage more group interaction." He also noted that the heavy emphasis on skills, the instructional emphasis on explaining what and how, and the tendency of the students not to inquire somewhat retard the development of general concepts, discovery and creativity.

The Mathematics Consultant concluded from his Fall observations that students were actively engaged in the learning process, that both teachers and students find the individualized instruction a better approach than the more traditional, and that changes in the program have resulted from the continuing search for improvement.

In the Spring the Mathematics Consultant found some noteworthy changes in the program. He cited new course offerings, which have attempted to integrate experience with cognitive learning. He found that the policy of student selection of course and the time unit concept of course meetings stimulated student interest and learning. He found staff and student interest and morale high.

The Mathematics Consultant found materials used in the math workshops lacking in "variety and imagination." The individualized instruction program was again found worthwhile but improvements could be made in the area of extending skills and giving these a wider application in terms of student interests. He recommended that:

1. Skills worksheets should include examples that develop the students' ability to estimate, check and assess the reasonableness of their results.

2. Applications employing simple verbal problems would add interest and provide for a transfer of training of arithmetic skills to life oriented situations.

3. Discovery and experience oriented activities should be incorporated in the skills workshop to provide for variety and concept development.

4. Short 10 or 15 minute developmental units should be introduced to small groups to overcome the limitations of a singular method of instruction.

5. To renew and maintain interest, two or more distinctly different mathematical activities should be offered to students who elect courses requiring a double period.

CONCLUSIONS:

The Mathematics Consultant found that the mathematics program at present represents a "well-defined set of mathematical activities designed to develop skills without ignoring concepts." New course offerings are both relevant and stimulating. Progress made was quite satisfactory.

Perceptions of a Science Consultant

The science program was also evaluated twice, in Fall and Spring. In the Fall the Science Consultant found the goals and philosophy of the science program realistic and appropriate but noted some problems in implementing them.

There appeared to be a lack of clarity regarding the staff members' role definitions. Vis à vis each other the consultant found the science personnel quite competent but observed a communications gap within the cluster department. Planning went on, but each teacher was allowed to pursue his own curriculum and no records seemed to be kept of the variations. Teachers felt planning sessions were helpful, but they were held irregularly. The para-professional in the program was actively engaged in providing individual help to students, but was unsure of the purpose of the cluster program and not included in program planning.

The consultant also observed that while the science program is skills-oriented, no attempt seemed to be made to measure the students' existing skills, to define those to be cultivated or of sequencing specific activities with the development of certain skills in mind. Records of worthwhile materials and activities as well as objective evaluation of curriculum were found lacking. Students felt unsure of the purpose of the program - or failed to perceive it - and were in general not clear about their place in it.

CONCLUSIONS:

The consultant found the program "an appropriate model" with a dedicated staff, and offered the following suggestions to improve communication and planning:

1. That the "oldest" science teacher encourage more curriculum continuity by developing a set of guidelines orienting new staff to the goals of the program, listing specific skills to be developed, and noting curriculum materials that could be preserved and developed.

2. That there be greater direction and more observation to insure the carryover from the theory of the cluster to its implementation in classroom setting.

In the Spring semester the consultant found that the phasing had introduced extensive and positive change in the science program. The new phasing program had the benefits of developing cognitive skills as well as maintaining student interest and responsibility in learning. Program development had been improved in content and planning.

CONCLUSIONS AND RECOMMENDATIONS

The Science Consultant was generally positive about the phasing program in science.

The consultant suggested pre and post test designs be developed for each phase offering, as well as a set of objective criterion for student evaluation of course offerings. He recommended establishing some new course offerings to cut down on repetition and the extension of the phasing to the 11th grade.

Perceptions of a Social Studies Consultant

The Social Studies program was evaluated with respect to its success in reaching goals of:

1. Providing students the experience of dealing with relevant topics.
2. Encouraging the students' growth in knowledge and their ability to understand and apply learning to problems outside the school.
3. Assuring the development of the students' "real and felt" ability to handle problems.

From his classroom observations, the evaluator found both teachers and students actively engaged in learning experiences consistent with the goals of the program. The students appeared interested and there was much class participation. Teachers seemed enthusiastic and helpful. Curricular topics were relevant and stimulating and offered differing points of view.

The faculty of the Social Studies program felt the cluster approach fostered a more relaxed and flexible atmosphere among both teachers and students, encouraged freedom of expression and greater interest on the part of the student, and enthusiasm on the part of the staff. The coordinator's reaction to the program was very favorable. He cited high performance levels and cooperation of the teachers and the involvement of the students in the program.

CONCLUSIONS:

The consultant concluded that the Social Studies program had been successful in accomplishing its goals and in linking curriculum topics to students experience. He did note poor communication between cluster personnel and social studies staff of the "regular program." He recommended the openings of more communication channels between cluster and "regular" staff in organizing the curriculum. In addition, he suggested increased emphasis on the conjunctive development of basic reading skills, the construction of a list of basic skills to be developed and their use as a checklist of student progress; a student course evaluation; and the recording of successful curriculum materials.

CHAPTER III

STAFF REACTIONS TO THE CLUSTER PROGRAM

This section considers the staff of the cluster program as a whole, with separate sections on the perceptions of the program's Psychological personnel, and social worker to follow. Data were obtained from interviews and questionnaires administered to the staff toward the end of the school year.

As stated at the beginning of the report, among the main goals of the program were the improvement of students' attitudes toward self and towards learning, and of the teachers' understanding of so-called "problem pupils." In this, most of the staff feel the program has been successful (cf. Table 1).

All staff concurred that their participation on the cluster program increased their understanding of the problem pupil. All staff members but two - who were unsure - felt the students' attitude toward learning had improved since admission to the program. Eleven of the 15 staff members also felt that students' attitudes toward themselves had improved as well. Four - including the two guidance counselors were unsure that the students' self-perceptions had improved, but one of the staff stated that there had not been any improvement in this area.

Most of the staff were satisfied with the screening of students for admission to the program. Some expressed concern about attendance (see below in this section) but the staff was split as to whether a cutting check system would benefit the program. The 3 psychological personnel were satisfied with the psychological services the program provided. Five of the other 12 staff members were not. Criticism (even by some generally satisfied with the services) ran in the direction of understaffing and resulting lack of time on the part of the psychological personnel to adequately handle their referrals. More help from para-professionals and a cluster psychologist were two suggestions. One teacher observed the lack of understanding of the purpose of the psychological services:

> "Some students still have the idea that psychological investigation is only for 'crazy people.' Some students have mentioned that they dislike the invasion of privacy."

And another limitation of the services was pointed out by another teacher:

> "The services provided fail in most cases to reach those students who need help most. There is no plug into community mental health agencies or other possibilities for referrals or out of Board of Education system alternatives....."

However, 7 of the 12 teachers and the coordinator were satisfied with the cluster's psychological services, one qualifying his "yes" with "...given the

time and money available...."

TABLE 1

BREAKDOWN OF RESPONSES TO FACULTY QUESTIONNAIRE.

ITEM	YES	NO	UNSURE	N
Satisfied with the development of new curricular materials.	13	1	1	15
There is a successful communication about innovation curriculum in the cluster program with the rest of the school.	1	12	2	15
Satisfied with the method of screening 9th grade students for the cluster.	10	3	2	15
Satisfied with guidance and psychological services	9	5	-	14 responses
A cutting check system would benefit the program.	5	5	4	14 responses
Experience in the cluster has increased your understanding of problem pupils	15	0	0	15
Since admission to the program students have improved attitudes toward learning.	13	0	2	15
Since admission to the program students have improved attitudes about themselves.	11	0	4	15

Another aim of the program was the development of some curricular innovations. Of the 15 staff members, 13 were satisfied with the development of new curricular materials within the cluster. Twelve out of 15, however, felt that there was not successful communication about these innovations between the cluster departments and the corresponding departments in the rest of the school. Only one teacher was satisfied with his department in this area.

It was the feeling of most of the staff that the extension of the mini-schools to the whole 9th grade would have a positive effect on the program. (Two of the faculty thought it would have no effect, two were uncertain) Some felt that both students and faculty would feel "less special" - less of a "... foreign entity..." in Benjamin Franklin. Most thought it would benefit the program as a whole and mentioned greater staff interest, improved inter-staff communication between the clusters and the rest of the school, and greater understanding and perhaps the eventual horizontal expansion of the cluster program as probable results of such an extension.

Most felt that they, as faculty with prior experience in the cluster program, could support the extension as resource persons or as consultants. The roles the majority would like to play in an expanded cluster program were "lead roles" - functioning as coordinators, advisors, demonstrating curriculum, organizing and/or directing various phases of the program.

Only 2 faculty members wished to have no role in such an extension, and one elected to retain his role within the present cluster.

The Cluster program has endeavored in its philosophy to be "student oriented" in its approach, in contrast with the more "instructor-oriented" leaning of the "traditional" classroom. The majority of the staff believed that both traditional and so-called "affective teaching" were important elements in the teaching-learning experience, and that the success of the cluster program would lie in its ability to effectively combine them. Sample comments follow:

> "They reinforce each other and one cannot exist without the other."
>
> "Any organism that grows only in one direction becomes deformed. Traditional and affective approaches foster two separate and necessary ways in which students may grow."
>
> "They are both important. Some students benefit... more from one than the other."
>
> "[There] ... should be an effort made to integrate the affective and cognitive domains...."

Three teachers, however, emphasized more the benefits of the affective mode of teaching: decreased pressure on and freedom for the student,

> "The affective education permits the students to become free sooner in the school year. This permits

> them to be more open to school and learning in general."
>
> "Affective education is a necessary component of a humanized school - it [affective aspect] needs to be engendered in any schooling environment."

And one teacher pointed out that "...traditional education in the present circumstances fails utterly to realize student potential."

In an over-all view, the features of the program most frequently mentioned as being most satisfactory were the phasing program, and the freedom of choice it offers the students, curriculum development and student-teacher rapport. (see Table 2.)

Responses about which features were least satisfactory were less patterned. However, the faculty were dissatisfied most frequently with the planning and definition within the various departments. The curriculum and its development was disliked as frequently as it was liked.* And some (notably the curriculum developers) complained about the "innovative snowball..," and cited that attitudes within the system tend to inhibit any real innovations.

* It is interesting to note that those who cited "curriculum development" as "most satisfactory" were teachers. Curriculum developers mentioned this area as one they were "least satisfied" with.

TABLE 2

FACULTY RESPONSES TO FEATURES OF PROGRAM MOST AND LEAST LIKED.

FEATURES OF THE PROGRAM MOST SATISFACTORY:		FREQUENCY
PHASING		9
STUDENT-STAFF RAPPORT		4
STAFF COHESION & COMMUNICATION		4
*CURRICULUM & CURRICULUM DEVELOPMENT		3
OTHER	(Team teaching	1)
	(Classes outside building	1) 4
	(improvement of students' self image	1)
	(inter-student relationships	1)
TOTAL		24

FEATURES OF THE PROGRAM LEAST SATISFACTORY		FREQUENCY
CLUSTER PLANNING & ORGANIZATION		5
*CURRICULUM & CURRICULUM DEVELOPMENT		3
INTERFERENCE WITH INNOVATION		3
OTHER	(insularity of cluster	1)
	(job security	1)
	(psychological services	1)
	(image of cluster in rest of school	1) 8
	(lack of parent involvement	1)
	(problems with Board of Education	2)
	(interdepartmental communication	1)
TOTAL		19

Following from this, the staff's suggestions for an improved cluster program centered around improving program structure and expanding the curriculum. Some mentioned more "out of the building" activities, including "...courses on cultural communities of New York City," and two mentioned tieing the curriculum into vocational needs of the student body. Increased parent involvement and various means of increased student involvement (promotion of a student organization, giving the student greater responsibility in planning and decision making) were also suggested. It was thought by some that the latter would encourage student attendance, which they implied had not been satisfactory to them.

CONCLUSION AND EVALUATION:

1. The staff reaction seems to indicate that the cluster program continues to be successful in promoting greater understanding between student and faculty and in motivating students' interest in learning and easing their feeling of alienation from the institution of "school."

2. The development of innovative curriculum materials and its extension to the rest of the school seems to fall somewhat short. The curriculum developers feel inhibited in their innovations and the staff generally feel that innovations that are made do not quickly filter to departments outside the clusters.

3. Some improvement is needed in the planning and structure within the program and in communication between members within the staff in curriculum areas.

4. There is some apparent need for either increased staffing or restructuring of psychological services so that they might function more effectively for all students who would benefit from them.

The Role and Perceptions of The Cluster Psychologist:

The psychologist has been with the cluster program for four years on a part-time basis. The other half of his time was given to the rest of Benjamin Franklin High School. Although the program was funded for a full-time psychologist this year, he remains part-time in the cluster until another psychologist is assigned to cover his duties in the "regular" school. Many of the "regular program" students he does see as psychologist for the cluster program, are former cluster students. He works primarily with 10th grade students and acts as consultant to the 9th year guidance counselor.

He perceives his role as extending beyond the psychologist's "office" - he has taught in all of the phases on the theory that meeting the student in another setting helps to break down the barrier that fears and misconceptions about seeing a psychologist can create. He feels that through a teaching role he can become better acquainted with student problems and establish a basis of trust on the part of the student. He has taught psychology of Human Behavior and Psychology of Madness and Power to 9th and 10th graders. His courses meet daily and are generally informal. He encourages thought, discussion and a lively exchange of ideas.

He tries to deal in class with the core problems of this age group. In one of his courses, some of his sessions were run by a volunteer from a drug rehabilitation program. It was her purpose to serve as a model for the students, to encourage them - in a non-threatening atmosphere - to get to understand their feelings, express them openly, and give advice to each other.

The psychologist gets referrals from his informal contact with students as well as from teachers. He meets with teachers once a week to discuss potential student problems, and at times feels it beneficial to meet with both teacher and student to work on a problem. In addition, he leads some therapy groups composed of cluster students and graduates and "regular program" students.

Within the cluster, the "problem pupil" is seen as a student with a problem that might be handled rather than labeled as hard to discipline. The cluster staff is tolerant of deviance and the high level informal personal contact facilitates examining problems openly.

The psychologist feels that the program has been improved for the 9th grade by having heterogeneous classes (e.g. students with differing reading levels are together in a class rather than being separated according to scores). He feels it has encouraged the students to remain within the cluster.

Role & Perceptions of a Part-Time Psychologist:

The cluster program also employs a psychologist who works with cluster students one day a week. On this day he leads a therapy group, does some diagnostic testing and meets with the cluster's other psychological personnel.

He feels that the strong points of the cluster program are that it encourages the student to come to school. He thinks that not only are skills built in the clusters but through - again - the individual attention, acceptance and warmth the student receives - his self-image is improved and strengthened as well.

The Role and Perceptions of the Ninth Grade Guidance Counselor

The ninth year guidance counselor works mainly with the cluster students although he does see former cluster students who encounter problems adjusting to the "regular" probram in Benjamin Franklin. He helped screen students for admission to the ninth grade cluster, disseminated literature explaining the program to them, and at the beginning of the year, he met with all ninth graders. Parents are also involved where beneficial. In addition, the guidance counselor teaches a course in each phase and offers guidance in choosing courses. He leads three groups of students with special problems, and meets daily with 4 or 5 who need considerable help, while handling his normal caseload.

The ninth grade guidance counselor sees two basic goals for the program: establishing intimacy between staff and student and fostering autonomy in the student. The latter is promoted through the phasing program, and greater

intimacy is achieved via the close communication of staff with the students and with each other. He is concerned for students who leave the program and thinks that terminating the program after the 10th grade places students who benefited from the intimacy of the clusters in a setting in which they might have difficulty readjusting. He would like to see the program expanded within the high school. He also feels the need for improved communication with the rest of the school, and increased contact with community, and business agencies, and colleges.

The Role and Perceptions of the Tenth Grade Guidance Counselor

The 10th grade guidance counselor has been with the cluster program for four years. He feels it has given him a tremendous opportunity to know the students and provide help with problems they might have. Cases are referred to him by teachers and by the students themselves. Many times through his personal contact with students, he has become aware of additional problems. The counselor sees the students on both a group and an individual basis. He works closely with the tenth grade cluster teachers. He has a particular interest in vocational counseling and consequently holds a class in Careers. He is concerned about many of the students who feel they are "doomed to failure." Through his course, he hopes to get students to take inventory of their aptitudes, talents and interests and relate them to possible job areas.

He feels that the cluster program is attempting to solve some of the more salient educational problems namely: the alienation students feel from large impersonal schools, the inflexibility of programming and the problem of teacher responsibility and accountability.

The Role and Perceptions of the Social Worker

The social worker works half-time with the cluster program and as a consultant to guidance counselors for the rest of Benjamin Franklin High School the rest of the time. She receives referrals from the guidance counselors, but also takes students who come on their own. She sees approximately 35 students on a regular basis, some once a week, a few each day and makes some home visits. She attends cluster meetings works closely with counselors and teachers and has taught a course in two of the phases, and has plans for attending community meetings and starting a parent workshop this coming year.

She feels the Cluster program needs a full time social worker in order to adequately perform the role. Like the guidance counselors and the cluster psychologist she sees the intimacy and personal contact fostered in the cluster as its greatest advantage. The most important feature to her is that the students in the cluster are not "lost."

CHAPTER IV

THE IMPACT OF THE CLUSTER PROGRAM ON STUDENTS

A. STUDENTS ATTITUDES

Table 3 contains the proportions and responses of the cluster students to a series of questions designed to elicit a generalized feeling toward the total program. Responses are listed in percentages.

TABLE 3.

PERCENTAGES OF RESPONSES TO STUDENT QUESTIONNAIRE #1.

1. For me, the Cluster Program was:

54.7 a. very helpful
35.0 b. somewhat helpful
8.1 c. not very helpful
2.2 d. not helpful at all

2. Compared to my friends who are not in the Cluster Program, I learned:

59.9 a. about as much as they did
26.3 b. not as much as they did
13.8 c. much more than they did

3. If the Cluster Program was available next year, I

74.7 a. would
24.3 b. would not

like to be enrolled in it.

4. The Cluster Program is best for:

2.1 a. very smart students
47.6 b. average students
50.3 c. students who are having trouble with school work

5. Because I was in the Cluster Program this year, next year I will probably do:

77.4 a. better than this year
18.2 b. about the same as this year
4.4 c. a little bit worse than I did this year

6. As a student I consider myself to be:

8.0 a. way above average
26.3 b. somewhat above average
47.4 c. about average
16.1 d. somewhat below average
2.2 e. way below average

The students feel very favorable toward the Cluster Program. Almost 90% considered the cluster program to be helpful (54% indicated the program was very helpful); and if the program were offered again next year, 75% of the students would like to enroll in it.

The Cluster students' estimate of the instructional capability of the Cluster Program is somewhat more negative than their overall reaction to the program. Two times as many students felt that they were learning less than friends not enrolled in the Cluster Program than felt they were learning more than their friends. Many may have felt that this year's period in the Cluster Program was an orientation of sorts. More than 75% felt they would do better next year than this year. Perhaps many of them felt this way because they didn't believe they learned as much as possible this year.

Nearly all students feel that this program is for either average students or for those having trouble with their schoolwork. Yet their own self estimates place them somewhat above the average, which is a sign that the students feel very positive about themselves. The students feel perhaps that while the program is geared for students having academic trouble, this trouble stems from things other than their own potential.

B. STUDENT REACTIONS TO TEACHERS AND PROFESSIONAL STAFF.

To elicit student reaction to more specific aspects of the program, a second questionnaire was administered. The students were asked to respond to questions dealing with their attitudes toward teachers and other professionals, aspects of curriculum, work and study habits, and awareness of self and others.

Student perceptions of the cluster teachers were most favorable. Over sixty percent felt that the cluster teachers, compared with teachers that the students have had in the past were more interested in them. A similar percentage felt that the teachers knew the students very well (only 2% felt that the teachers did not know them at all). In addition almost 25% of the students felt they would most likely go to one of their teachers for help with a personal problem.

Since one of the major goals of the Cluster Program is more intimacy and personal involvement with the students, it would appear that the "mini" school concept is achieving this end.

The role of the guidance counselor was also viewed favorably. With a student load of one to 150 (as opposed to approximately one to 500 for the general school population), guidance counselors appear to have been able to make more meaningful contact with the students. Sixty-six percent of the respondents indicated that the guidance counselor was a big help to them in handling personal problems. Over 70% indicated that they would most likely seek out the guidance counselor to talk over personal problems.

There seems to be some ambiguity concerning the social worker. As three-quarters of the students stated that their parents had received no contact from the social worker. The large number who did not respond may not have known about the services of the social worker. In any case the range of influence of the

social worker seems to be more limited than other members of the social services staff.

C. STUDENT REACTIONS TO THE CURRICULUM

The students responses to questions concerning the courses and the use of materials in the program were most positive. The great majority of the students (82%) felt that the cluster classes, in terms of difficulty, were just about right for them. The students felt comfortable about the classes. Over 70% felt free to say what they thought in most classes. Expectations for the courses, developed from course descriptions, were most often met. Eighty-eight percent felt that the courses offered in each phase either met or exceeded the expectations of the students. The use of worksheets in the course work was considered more helpful than textbooks by 38% of the students. Forty-four percent found them equally as helpful as tests.

The phasing program was also viewed with enthusiasm. Over half of the students indicated that their interest increased very much since the introduction of phasing. The students were quite receptive to the use of field trips in learning new things. Only 12% felt the trips were a "waste of time." The other students viewed the trips favorably.

D. STUDENT EVALUATION OF COURSE WORK
WORK AND STUDY HABITS

The students appeared to accept the concept of independent study. Responding to the idea of how much they learned compared to a regular class, 50% indicated they learned about as much as in a regular class. Forty-five per cent felt they learned more in this manner than in a regular class.

Drawing up a contract in order to structure work assignments was well received. 84% felt the contract procedures helped the students know what to do. Very few students felt that drawing up a contract did not help them to know what to do. Reacting to completing assignments almost three-fourths of the students felt they usually try to finish assignments once underway. It is significant in terms of academic motivation that 63% of the students thought that the chance to choose their own program was very important to them.

The students indicate a healthy attitude toward correction of mistakes and accepting new academic challenges. Over 75% felt they learned a lot from the corrections made by the teachers on their worksheets. Very few students felt they learned nothing from the corrections. An addition of over 60% of the students indicated that if they were having problems in an academic area that they would choose courses in that area rather than choosing courses in other subjects.

E. SUMMARY AND EVALUATION

The student responses to the two questionnaires suggest that the Cluster Program is achieving its goal of improving student attitudes toward themselves and school. Students seem to regard the teachers and the curriculum with a great deal of enthusiasm and express an interest in staying in the program should it be extended in the future.

F. STUDENT ATTENDANCE

The students for the 1970-71 Cluster Program were 300 (228 after attrition), principally Black and Puerto Rican ninth and tenth grade students from the upper, central and East Harlem areas.

The ninth grade cluster students were selected largely on the basis of eighth grade reading scores, past attendance (not more than thirty days absent) and recommendations from their eight grade guidance counselors. Incoming Reading Achievement scores averaged 5.2 grade equivalent units with a range of 3.2 to 6.9. Mathematics achievement scores were similarly low.

The tenth grade class was composed largely of those students who did not do well in the ninth year Cluster Program and by students who expressed a desire to stay in the program another year. Those few students lost by transfer were replaced by other students who met equivalent criteria.

Attendance information was collected from records provided by the attendance office of Benjamin Franklin High School. This information included daily attendance and register by sex for each day of the term. Average attendance figures were provided for the Cluster Program, ninth and tenth year non-cluster classes, and for the school as a whole. These averages were computed using a school year of 168 days.

Total attendance for the Cluster Program students for the 1970-71 school year was 71.5%. This far exceeds the total school attendance of fifty-two per cent. When compared to non-cluster ninth and tenth grade attendance figures of forty and fifty-two per cent respectively,** the Cluster figure is still favorable.

Computed in terms of days in attendance, the Cluster students attended school approximately 120 out of 168 days. The school average was eighty-seven days for the year with the ninth year average at 67 days and the tenth year figure at 91.

Closer examination of the Cluster Attendance data show a more favorable attendance record for the ninth year students. Ninth year students attended school 75% of the time; while the tenth year was 68%. Extrapolated to days in attendance, the ninth grade exceeded the tenth 126 to 114.

* This figure is somewhat depressed due to school disturbances.
** This figure includes 48-99 non-programmed students. Elimination of these students from the register would improve these percentages a few points upward.

Attendance worksheets reveal a class size for the total cluster program of approximately 23 students per class. This would be a bit lower than the projected thirty per class called for by the program. The number of students leaving the program seems to be greater in the tenth year. During the fall semester, tenth year registration was about 24 students per class (range 22-28); the average for the spring term was close to twenty-one (range 18-24). The ninth year figures were virtually the same from fall to spring. An average of 23 students per class (range 22-26) in the fall, to an average of twenty-two students in the spring (range 20-24).

When compared to students who were in the Cluster Program last year but not this year there was little difference between their attendance rates and those of the Cluster students. When compared to their tenth grade counterparts in the Cluster Program; each had an attendance rate just under seventy per cent. It is somewhat lower than the overall Cluster average of 71.5% but not considerably. There was a large difference, however, between this group and the ninth year class, (69 to 75%).

It was not possible to evaluate tardiness or class cutting since records with this information were not available.

Evaluation and Recommendations:

(1) In a relative sense the Cluster Program attendance figures are encouraging. They represent a difference of approximately nineteen percentage points between Cluster students and the general school population. Since attendance is often a strong indicator of overall attitudes toward school, this difference signifies high levels of interest and motivation by Cluster students relative to the general school population.

(2) The typical Cluster student was absent 48 days. In an absolute sense this figure is somewhat high. In 1968-69 the absenteeism rate was 47 days; in 1969-70 this was reduced to 36 days. Clearly the 1970-71 absenteeism rate represents a considerable increase from the previous year. Such inconsistent attendance can only work to negate curricula innovation and the benefits of structural reorganization. Certainly if students are to profit from educational change, they must be present to accept the challenge. While the October boycott undoubtedly had some effect on school attendance last year, continued efforts must be made to improve attendance rates in the future. Increased parental involvement and more coordinated efforts on the part of the social worker and attendance office would constitute necessary steps in this direction.

(3) Class size also appears a bit undersubscribed. At the end of the 1968-69 school year class size was to be increased to approximately thirty per class. However, with the 1970-71 class average of twenty-three in the Cluster Program, this goal was not reached. Only one class ever had as many as 28 children. Since the average number in attendance each day per class was about 17 students (71.5% of 23 students), well below the theoretical figure of thirty, actual attendance in terms of potential was greatly depressed. If one of the purposes of the cluster program is to reach as many students who could profit from it as possible, then it is recommended that the actual class register be brought as close to this thirty students per class figure as possible. This would allow more students into the program without increasing present facilities.

G. STUDENT ACHIEVEMENT TEST DATA

Achievement test data for the Cluster students were obtained principally from the results of the reading and mathematics sections of the California Achievement tests given in October, February and May. In addition, other achievement data was collected whenever possible from a control group of ninth grade students not in the Cluster Program, and from students who were in the Cluster Program last year but not this year. Comparisons were made with the Cluster students whenever necessary and whenever data permitted. Since these two non-Cluster groups were tested at different times, often using different tests, these comparisons are not as valid as they could have been. However, they do have value as a reference point from which to judge the relative performance of the Cluster group. It would improve evaluative procedures greatly for both the Cluster and non-Cluster students if more uniform testing procedures were adopted for the school in the future.

The original goals for the Cluster students was to attain a 30% three grade rise in mathematics and reading in one year. From the results of the standardized tests described in the following table, these projections appear somewhat ambitious.

TABLE 4

STANDARDIZED MEAN READING AND MATHEMATICS ACHIEVEMENT SCORES FOR CLUSTER STUDENTS ON OCTOBER, 1970, FEBRUARY, 1971, AND MAY, 1971.

TEST	OCTOBER	FEBRUARY	MAY	CHANGE OCT. TO MAY
Reading	5.7	6.0	6.2	+ .5
Math	6.1	6.4	7.1	+1.0

The total Cluster sample gained approximately one-half year in reading and one full year in mathematics during the seven month period from October to May. These gains would appear well below the stated goals of the program.

In order to understand these achievement scores from another perspective a frequency distribution of reading and mathematics achievement scores was compiled for the Cluster students. The results of this distribution are shown in the following table.

TABLE 5

FREQUENCY DISTRIBUTION OF STANDARDIZED READING AND MATHEMATICS SCORE GAINS FOR CLUSTER STUDENTS FROM OCTOBER , 1970 TO MAY, 1971.

INTERVAL	READING N=102	MATH N=96
-1.6 - -2.0	0	0
-1.1 - -1.5	1	0
- .6 - -1.0	6	0
- .1 - - .5	14	5
0	9	2
-1 - .5	24-	17
-6 - 1.0	29	32
1.1 - 1.5	8	27
1.6 - 2.0	10	9
2.1 - 2.5	0	2
2.6 - 3.0	0	2
3.1 - 3.5	1	0

The Cluster student performance in mathematics exceeded that in reading. Almost 30% of the students had zero or negative changes in reading. Only 7% of the mathematics scores fell into this category. While mathematics scores peaked at the .6 to 1.0 interval level, over 40% of the students gained over a year in measured performance in mathematics while only about 20% attained this level of change in reading.

A comparison was made between Cluster students and a control group in the Metropolitan Achievement Test (MAT) taken by both groups in January, 1970. The control group was composed mainly of students in the ninth grade who met the same criteria as that of the Cluster students. Few tenth grade students were included either because corresponding records were unavailable or because they did not meet the same criteria as the Cluster students. A test of comparing both groups based on the MAT is shown below.

TABLE 6

COMPARISON OF CLUSTER AND CONTROL GROUPS ON THE READING MAT JANUARY, 1970.

GROUP	NUMBER	STANDARD DEVIATION	MEAN SCORE	t
Control	46	0.83	5.5	+0.97a
Cluster	142	1.02	5.8	

The mean scores are not statistically different.

In January 1971, the control group was rated on the reading version of the MAT. The results of this test show a mean score of 5.4 or no gain for the control group in a twelve month period. Since the Cluster students did not take this test, comparisons must be made on the basis of their performance on the California reading test. The Cluster students who were taken from the same population, showed a net mean gain of .5 grade equivalent units on the October and May tests. A correlated "t" test shows this difference to be significant within the Cluster group at the .01 level.

TABLE 7

COMPARISON OF OCTOBER AND MAY CALIFORNIA READING SCORES FOR CLUSTER STUDENTS.

GROUP	NUMBER	STANDARD DEVIATION	MEAN	t
October	103	0.847	5.7	7.3*
May	103	0.839	6.2	

*Significant beyond the 0.01 level.

Differences in time, test construction and rating scales not withstanding, this difference speaks well for the Cluster Program. This comparison, though not completely uniform, takes on more meaning when we consider the relative distribution of gains for the control group on the two versions of the MAT.

The following table shows the gains and the frequencies of the control group.

TABLE 8

FREQUENCY DISTRIBUTION OF READING ACHIEVEMENT TEST SCORE GAINS FOR THE CLUSTER PROGRAM CONTROL GROUP FROM JANUARY, 1970 TO JANUARY, 1971.

N=42

INTERVAL	CHANGE
-1.6 - - 2.0	
-1.6 - - 2.0	2
-1.1 - - 1.5	3
- .6 - - 1.0	5
- .1 - - .5	13
0	3
.1 - .5	3
.6 - 1.0	4
1.1 - 1.5	4
1.6 - 2.0	2
2.1 - 2.5	1
2.6 - 3.0	2
3.1 - 3.5	0

Test - Metropolitan Achievement Test

Of the forty-two students who took both tests, over sixty per cent registered no or negative gains. Among Cluster students taking the October and May California Reading tests only about 30% fell into this category.

This difference is most essential, especially when one considers both groups in terms of their low socio-economic backgrounds. While both groups started at similar reading levels (cf. Table 6) after one year there was approximately half a year difference between the two group means. While 70% of the Cluster students registered some form of reading gain, 60% of the control group did not during that same period. It seems reasonable to assume that while the control group is suffering the debilitating effects of an educationally depressed environment, the support and concerted efforts of the Cluster Programare effectively working to counteract these pressures and register positive educational gains among the Cluster students.

Comparisons were also made with students who were in the Cluster Program last year but moved to other tenth grade programs in the 1970-71 school year. School records allow a comparison between these students and the Cluster students on the Metropolitan Advanced Reading tests given in January, 1970 and May, 1971. The following table is a summary of those results.

TABLE 9

MAT ADVANCED READING SCORES FOR CLUSTER AND FORMER CLUSTER STUDENTS FOR JANUARY 1970-MAY 1971.

		JANUARY, 1970	MAY, 1971	NET CHANGE
N=.23	Former Cluster	7.47	7.20	-.27
N=78	Cluster	5.75	7.08	+1.33

These comparisons are based on very small samples and may not be completely representative of the actual effect of the Cluster Program. They are, however, very impressive evidence about the effects of the program. Two cautions are necessary in interpreting these data. The relative small number of Clusters who were tested on both the January, 1970, and May, 1971, may indicate some selectivity. In addition, the reading achievement score of 7.08 grade equivalent units on May, 1971, is substantially higher than the California Reading Test administered to all Cluster students also on May, 1971, ($\overline{X} = 6.2$). However, this is a complete record of all Cluster students who were tested on both occasions.

The performance of the former Cluster students is even more surprising The negative changes which occurred over the year and a half period are not due to variations in the level of the test. The Advanced Test was used both times. One can only surmise that either testing conditions were greatly different, measurement errors were present in unusual amounts, or that there was a real loss in achievement.

These findings might suggest that the gains achieved by the former Cluster students were being cancelled in the transition to normal or College Bound programs. Should this observation prove correct, the implications for future academic success as well as the continued improvement in attitudes toward school and themselves are quite serious. It also tends to confirm the "mini" school concept upon which the Cluster Program is built. Continued follow-up studies should, we believe, be conducted with respect to the former Cluster students performance in school.

Grade level comparisons were also made in order to determine mean differences within the Cluster group by grade level.

Analysis of reading scores reveals no considerable difference in achievement gains between the ninth and tenth year groups and the total Cluster Programs. Both groups were very close to the 0.5 level of change registered for the whole group. It is significant, however, that the ninth grade had a higher reading level than the tenth grade (5.8 vs. 5.5) upon entering the program and maintained that difference throughout the course of the year. This may be due to the retention in the Cluster Program of some of the poorer achieving ninth graders. Most of the other tenth grade students transferred to the school's College Bound Program.

TABLE 10

CLUSTER STUDENTS' READING ACHIEVEMENT SCORES IN OCTOBER 1970, FEBRUARY 1971, AND MAY 1971.

CALIFORNIA READING	OCTOBER	FEBRUARY	MAY	OCTOBER-MAY MEAN CHANGE
9 & 10th Grade Cluster	5.7	6.0	6.2	+ .5
9th Grade Cluster	5.8	6.1	6.4	+ .6
10th Grade Cluster	5.5	6.0	6.0	+ .5

A frequency distribution for each group reveals no divergent tendencies. Approximately 30% of the students in each group registered no or negative gains. In addition, all three groups peaked at the .6 to 1.0 interval level. The reading frequency for the Cluster student is listed below.

TABLE 11

FREQUENCY DISTRIBUTION OF STANDARDIZED READING ACHIEVEMENT TEST SCORE GAINS FOR CLUSTER PROGRAM FROM OCTOBER, 1970 TO MAY, 1971.

INTERVAL	NINTH AND TENTH GRADE N=102	NINTH GRADE N=72	TENTH GRADE N=30
-1.6 - - 2.0	0	0	0
-1.1 - - 1.5	0	0	0
- .6 - - 1.0	7	5	2
- .1 - - .5	14	9	5
0	9	8	1
.1 - .5	22	17	5
.6 - 1.0	32	22	10
1.1 - 1.5	9	4	5
1.6 - 2.0	8	6	2
2.1 - 2.5	0	0	0
2.6 - 3.0	0	0	0
3.1 - 3.5	1	1	0

Mathematics comparisons yield no considerable differences between the means of the groups. Both ninth and tenth grade groups averaged very close to the 1.0 change registered by the whole Cluster Program from October to May. A comparison of these mean scores follows in the table below.

TABLE 12

CLUSTER STUDENTS'MATHEMATICS ACHIEVEMENT SCORES IN OCTOBER, 1970, FEBRUARY, 1971, AND MAY, 1971.

CALIFORNIA MATH	OCTOBER	FEBRUARY	MAY	MEAN CHANGE OCTOBER TO MAY
9 & 10th Grade Cluster	6.1	6.4	7.1	1.0
9th Grade Cluster	6.2	6.5	7.1	.9
10th Grade Cluster	6.0	6.3	7.0	1.0

What is significant about the distribution frequencies of the mathematics scores is that while both groups peaked at the .6 to 1.0 level, no tenth grader achieved zero or negative gains. Eight ninth graders measured no improvement. The distribution frequency table follows.

TABLE 13

FREQUENCY DISTRIBUTION OF STANDARDIZED MATH ACHIEVEMENT TEST SCORE GAINS FOR CLUSTER PROGRAM FROM OCTOBER, 1970 TO MAY, 1971.

INTERVAL	NINTH & TENTH GRADE N=96	NINTH GRADE N=64	TENTH GRADE N-32
-1.6 - - 2.0	0	0	0
-1.1 - - 1.5	0	0	0
- .6 - - 1.0	0	0	0
- .1 - .5	6	6	0
0	2	2	0
.1 - .5	17	11	6
.6 - 1.0	32	20	12
1.1 - 1.5	26	16	10
1.6 - 2.0	9	7	2
2.1 - 2.5	2	2	0
2.6 - 3.0	2	0	2
3.1 - 3.5	0	0	0

California

SUMMARY AND EVALUATION

1. Cluster Program projection of a 3.0 grade equivalent rise in reading and mathematics was a bit too ambitious for the Cluster students. Average rise in reading was .05 and 1.0 and math during the seven month period of October to May.

2. Cluster students tend to achieve better after one year in the program than the ninth grade control group.

3. Students who were in the Cluster Program last year but not this year tend to register fewer gains in reading achievement than Cluster students.

4. Cluster students tended to perform better on mathematics achievement tests than on the reading.

5. In view of the lack of measured achievement of the two non-Cluster groups on standardized reading and mathematics tests, the Cluster Program must be viewed as a success. Certainly these relative gains argue well for the recycling of the program and its expansion as well. For it is apparent from these tests that the "mini" school concept can more effectively meet the extra-ordinary needs of the students at Benjamin Franklin High School than the more traditional structures.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. The Cluster Program continues to be successful in promoting student-faculty rapport and is decreasing student alienation from school.

2. The Phasing Program has been an extremely successful innovation. Faculty and student response have been most favorable. It has been successful in its aim of increasing student motivation and responsibility in learning.

3. There is inadequate communication between cluster and non-cluster departments at Benjamin Franklin High School.

4. Communication within the departments of the Cluster Program regarding structure and curriculum planning is somewhat lacking.

5. Psychological services are generally satisfactory but suffer from understaffing.

6. Programs in individual departments within the Cluster Program are successful, are consistent with program goals, and are running well. There is need however, for more definition of skills to be developed and objective measurement of progress especially in the areas of science and social studies.

7. Attendance patterns for those students in the Cluster Program are slightly better than those for other students in the same school, but could be improved.

8. Achievement scores show cluster students made more progress in reading than the non-cluster students.

9. Achievement scores show that students who were in the cluster program last year but transferred to the College Bound program this year did not continue to make the same gains in reading as those students who stayed in the Cluster Program.

Recommendations

1. The Cluster program has, in four years, proved itself to be effective in meeting the educational and emotional needs of its students. Strong consideration ought, therefore, be given to the idea of expanding the program both horizontally to the full ninth and tenth years and vertically into the eleventh year.

2. The Phasing Program should be continued along the same lines.

3. Counseling and psychological services should be continued at present levels and if possible expanded so that more students may benefit from their services.

4. Student attendance ought to be encouraged either through parent involvement in the program and/or more coordinated efforts between the Attendance Office and the Social worker.

APPENDIX MATERIAL

APPENDIX A

A REPORT ON THE

CLUSTER MATHEMATICS PROGRAM, FALL, 1970

The primary purpose of this report is to examine what occurs in the classroom and its relationship to the goals of the Mathematics Program. The goals in brief are:

1) to reinforce and extend arithmetic skills so that students are prepared to function effectively in the "regular program."
2) to insure that each student receives a maximum amount of individual attention and has the opportunity for experiencing success through individualized instruction.

Bringing students up to par is a goal common to many well known programs for low achievers. One positive result of this new goal is the noticeable presence of a more structured curriculum, designed to take the students from the arithmetic, to the pre-algebra and as far into the algebra as their talents and the time will permit. One negative result is the heavy emphasis on skills and remediation at the expense of discovery, creativity, and experiences more relavant to the world in which students are going to function. Preparing students to make the transition into the regular programs implies that the student is taking a step forward. I observed a traditional pre-algebra class whose students were purportively comparable in most respects to the Cluster Program and found that this singular instance argued urgently for the findings of research and my experience, namely that teacher-centered instruction offered in the traditional planner has not been successful with ghetto students. During my interview with the mathematics coordinator, I suggested that he build into the program the materials and experiences that would enable students to complete a standard course in algebra within the framework, philosophy and structure of the Cluster Program.

The strongest component of the mathematics program is its individualized instruction format. Projects were well organized into weekly activity units. Students knew what they had to do and did so with a minimum loss of time. The ghetto student is not inclined to put on a show for the casual visitor and the students in all five classes worked without disruptions for the entire period. Discipline problems and boredom were significantly less apparent in the Cluster classroom as compared to the traditional class. In-class interviews with twenty students indicated a 4:1 preference for the individualized approach over the traditional approach.

The primary and almost singular source of instructional activity is the worksheet supplemented by S.R.A. self-study materials, a basic arithmetic text and a standard algebra text. Except for the unit on abstract algebra the exercises were skills-oriented. The students were busy but not involved. While some students sat in pairs or triples, communication with each other seldom involved the mathematics. The pupils in the groups did not function as a group because neither materials nor instruction was directed toward taking advantage of the many positive educational outcomes that accrue from cooperative group activity. The quality of instruction could be appreciably improved by the incorporation of materials and activities that encourage group interaction. Teachers should be encouraged to make maximum use of the group as a vehicle for exchanging ideas, information and assistance.

The goal of providing for more individual attention has come closer to full realization because of the addition of an educational assistant to the staff. During an interview, the assistant indicated that he is a resident of the community, speaks Spanish, and knows the language of the ghetto. He is amply qualified to assist students with problems in mathematics. At the same time, he views his role as not being limited to answering questions about the arithemitc and algebra but he also acts to remove any cultural or language barriers that may arise between teachers and students. Students in the class respect the educational assistant and at the same time feel comfortable enough to address him on a first-name basis. He is enthusiastic about the program and genuinely concerned about the welfare of the students. The presence of a component educational assistant not only doubles teacher time available to each student but increases instructional efficiency. I am pleased to note that the assistant has not been relegated to the role of clerk and baby sitter.

The teacher in action in the Cluster Mathematics class organizes instructional activities, diagnoses and remedies difficulties, checks and records complete projects and prescribes the activities for each individual on a weekly basis. Teachers point out that they do have a role in planning and developing new materials. Teachers like the individualized approach for all of the standard reasons but teacher instruction in the classroom was predominantly confined to explaining what and how. The exclusive use of the individualized instructional technique does not permit the teacher the time for extended discussion of why. Couple this with the fact that the students are not predisposed to ask why and it becomes evident that the development of concepts and understandings are a subsidiary activity.

The role of the mathematics coordinator is difficult to determine by direct classroom observation but there is abundant evidence of his felt presence. Teachers feel that they can always call on him for assistance and students seem to know him quite well. The mathematics coordinator views his role as a facilitator of learning and as such feels it important that he be in the classroom as much as his time will permit.

Conclusions

1) To the extent that the goal of providing successful and worthwhile mathematical experiences requires that the students be directly engaged in the learning process, the program achieves a high degree of success.
2) For the most part teachers and students feel that the Cluster approach is a better alternative than the traditional approach.
3) Changes that have been made have been motivated by the continuing search for ways and means of improving the program.

Harvey J. Walker

APPENDIX B

A REPORT ON THE CLUSTER MATHEMATICS PROGRAM AT BENJAMIN FRANKLIN HIGH SCHOOL, SPRING, 1971.

Observations and Perceptions

The Cluster Mathematics Program in its current state represents a move from an amorphous set of mathematical experiences to a well defined set of mathematical activities designed to develop skills without ignoring concepts. For example, the addition of experience-oriented units on probability and statistics opens an entirely new vista of possibilities. Set theory developed through attribute blocks complement the systematic progress required of the students in the skills and algebra workshops.

Individualized instruction which characterizes the methodology of the program has proven its ability to sustain relatively high student interest and input. The success of the method and the materials are in large measure due to the genuine interest in each student exhibited by the staff. High teacher morale and interest in the program is further pointed up by the fact that all have volunteered to stay on for the year beginning September, 1971. This kind of staff stability is necessary for the success of any experimental program.

Students have stated with consistency that they have learned more and have received more help from their teachers than they did in the traditional courses in mathematics. These students have substantiated their feelings by providing classrooms that are relatively high in productive activity and practically free of discipline problems.

A significant effort to innovate has been made by offering courses in ten week time units. Some courses meet five times a week while others meet in double periods three times per week. Courses are selected voluntarily by students with subject teachers acting as grade advisors in their respective areas of specialization. The course offerings in mathematics are in keeping with the goals of the program and reflect an attempt to incorporate experiences in the community which can be tied in with the mathematics studies in the classroom. Although the staff claims a significant gain in student interest and output because of short range goals, first observations reveal little impact on the manner in which instruction and learning has taken place in the past. Students in the double period classes reached their maximum attention span after 60 minutes. The next 20 minutes were lost to disinterest and small conversation.

Evaluation

The course offerings in community mathematics have excellent possibilities and they indicate an attempt to create a vital link between the classroom and the world outside. Allowing the students the option to choose courses in keeping with their needs and interests has not resulted

in a preponderance of choices in those areas requiring a minimum of mental exertion. On the contrary, judging from the attendance in the skills and algebra workshops, students have chosen subjects which will enhance their college-bound possibilities.

The materials used in the arithmetic workshops lack motivation and interest value. The work sheets are monolithic in their attention to the mechanics of computation. Variety and imagination seem to be the missing ingredients.

While the individualized instruction format has been highly successful and is well suited to the Cluster Mathematics Program, the limitations of a singular approach are readily observable. In practice the method and materials in the arithmetic workshops seldom extend beyond the levels of knowledge and comprehension as defined in Bloom's Taxonomy of Educational Objectives. Teacher attention per pupil is greater than that provided in the traditional class but teacher attention to any one skill or concept ranges from a low of one minute to a high of four minutes. Therefore, there is hardly enough time to do more than answer a fact question, diagnose a simple difficulty, or touch upon underlying ideas.

Recommendations

(1) Skills worksheets should include examples that develop the students' ability to estimate, check and assess the reasonableness of their results.

(2) Applications employing simple verbal problems would add interest and provide for a transfer of training of arithmetic skills to life oriented situations.

(3) Discovery and experience oriented activities should be incorporated in the skills workshop to provide for variety and concept development.

(4) Short 10 or 15 minute developmental units should be introduced to small groups to overcome the limitations of a singular method of instruction.

(5) To renew and maintain interest, two or more distinctly different mathematical activities should be offered to students who elect courses requiring a double period.

Conclusions

Statistics may not reveal dramatic gains in grade level performance on standardized tests, but the improvement in student attitudes, interest and willingness to work toward goals of achievement is clearly evident. The new courses in community mathematics offer many possibilities for team teaching and curriculum correlation.

The mathematics coordinator and his entire staff are to be commended for the excellent progress made thus far.

Sincerely,

HJW;jl

Harvey J. Walker
Lecturer in Mathematics Education

APPENDIX C

REPORT ON THE

CLUSTER SCIENCE PROGRAM, FALL, 1970

This evaluation is based upon classroom observation, interviews with students, aides, teachers, and the supporting staff members who are involved in the development of the science Cluster Program for the ninth and tenth grades at Benjamin Franklin High School.

The science curriculum developer has stated goals and objectives of this program which appear to be both reasonable and appropriate. It should be clearly understood that any criticism of the program is not with its philosophy, but its implementation. One basic problem appears to be the lack of a clear statement of roles and their interactions on the part of the professionals involved.

The science curriculum developer includes as his responsibility the role of "appraiser of teacher performance and developer of program materials." He makes no attempt to be a supervisor in a traditional sense. The distinction between "appraiser" and "supervisor" is clear to the curriculum developer, but not to the two science teachers who, in the curriculum developer's words "do not necessarily accept (his) appraisal of performance or program." The science curriculum developer also attempts to "resolve a skills approach with the teachers content attitude approach." This attempt apparently takes place during weekly planning sessions when he sits down with the teachers individually and plans the following week's curriculum. These plans consist of broad outlines suggesting daily activities. Although each teacher has five sections, the same general plan is used for every period. Any variations in materials and presentation between sections is not recorded. During these weekly planning sessions, the science curriculum developer allows each teacher to pursue his or her own curriculum. Some new materials have been developed by the teachers. The more experienced of the two teachers makes her own decisions on subject matter, while the science curriculum developer suggests appropriate skills activities. Occasionally he does not agree with the content being presented, but every attempt is made to encourage flexibility in the program.

The less experienced of the two teachers tends to follow the specific topics suggested by the curriculum developer. This teacher has had to spend more time familiarizing himself with some of the materials used in previous years with Cluster teachers.

Both teachers find the weekly planning sessions helpful, but unfortunately they are not held as regularly as they might be.

The paraprofessional who works with both Cluster teachers is in her first year in a high school. She has previously worked in a M.E.S. elementary school program. Although she is actively engaged in providing individual assistance to students during class, she has not been included in the weekly planning sessions, nor has the philosophy of the Cluster Program been explained to her. Other than "helping," her role in the class should be clarified.

Although the science Cluster Program is,by philosophy,skills oriented, there appears to be no attempt to measure existing skills or to identify those which ought to be developed. Further, there has been no attempt at sequencing activities in order to develop particular skills.

During my observation of one ninth grade classroom, the students were experimenting with thermometers. They were guided in their investigations by a worksheet which required them to follow a specific series of activities involving such skills as measuring, reading, comparing, etc.

In the tenth grade, I observed lessons on nutrition which involved experiences in estimating, counting and performing simple number operations. In both situations, most of the class required individual assistance and under those circumstances appeared to generally well-involved. It was not clear whether it was the directions on the worksheets or the level of the work which required additional assistance.

Interviews with students in both grades indicate some confusion about the purpose of the Cluster Program. Three students in one ninth grade class indicated they had been placed in the Cluster Program without explanation. While two of them felt the teaching was "different" only one would remain in the program if given a choice. Surprisingly, one student was not aware of being in a special program. In a tenth grade class, two of four students interviews also claimed not to be aware of any special program. Some benefits suggested by the students ranged from "Teachers care more for you" to "You don't carry books." One student in each grade expressed the feeling that they had the same science material before and that the group was "too slow." One gets the overall impression that pupils regard the course as a low science content level course rather than opportunity to improve basic skills.

The Cluster Program is in its third year, but there appears to be little in the way of permanent records. There does exist a filing cabinet of worksheets and activity outlines, but no one has recorded student reactions or has noted which activities have been worthwhile or promising. This year more worksheets are being added to the file and if the teachers do not return to the Cluster Program next year as has been the case in every preceeding year, they will be of limited value for no one will know who, when, or why they were meant to be used. There appears to be little in the way of objective evaluation of the materials by the day, week, month or subject unit.

Summary

There is no doubt that the science Cluster Program is an appropriate model which deserves continuing support and development. The staff members are thoughtful dedicated professionals. There is no question of their competency. There does appear to be, however, a communications problem within the group which tends to make it somewhat inefficient. The recomendations which follow are offered as a possible remedy.

Recommendations

(1) There has been a complete turnover of science Cluster teachers each year. Mr._____ provides the only thread of continuity. It is suggested that he:
   a) construct a set of guidelines to help new teachers become oriented to the purposes of the program.
   b) suggest a list of specific skills the program is trying to develop in the students.
   c) start to identify, with the teachers, those topics which have been reasonably successful and which merit consideration for further development.
   d) review annually, with the teachers, the materials and supplies available for their use.

(2) The teachers do not always see the relationship between the "Big Ideas" of the Cluster Program and specific daily classroom activities. Additionally, a verbal committment to the philosophy of the science Cluster Program does not necessarily insure its implementation. Therefore, it is suggested that the Science Curriculum Developer place greater emphasis on classroom visitation in order to provide daily support and direction. A teaching load of five classes daily may be too heavy to expect much innovation from the teachers without such support and direction.

(3) Roles must be clarified. It is suggested that the Science Curriculum Developer, the two teachers, and the Educational Assistant meet regularly to clarify their respective responsibilities and how these are related. In addition, the program should be (re)explained to the new students who appear to be unsure of what is expected of them.

APPENDIX D

EVALUATION - CLUSTER SCIENCE PROGRAM
BENJAMIN FRANKLIN HIGH SCHOOL
SPRING, 1971

There has been a drastic change in the format of the Cluster Program in the Spring term of 1971. This new format makes use of "phases" which can best be described as subject units of four weeks duration. These phases are offered in all the subject areas including science. They are described briefly in a mimeographed catalog from which the students elect and choose every four weeks.

The phases are still in the formative stage with new outlines constantly being developed. Existing outlines are currently on file and include the following:

Ninth Grade:

Going to the Moon: What it's all About.
Laboratory Exercises in Science.
Photosynthesis
Grow Your Own Garden
Using Scientific Equipment
Electrons and Electricity
Solutions and Solubility
Food Webs of Different Habitats

Tenth Grade:

Organs of the Human Body
Now You Sense It; Now You Don't.
Photosynthesis
Blood Laboratory
Cells, Dinosaurs, Apes & Man...What do they have in common?
Genes, the Key of Life.
Organs of Excretion: Their Structure & Function in the Body.
Experiences in Chemistry
Science Projects; You do it.

Students may elect to exclude a content area completely (i.e.,math, science, etc.) for a phase or conversely, double up in content areas. While the program is less concerned with affective development, students interviewed at both grade levels continue to report a feeling of greater support from those faculty members participating in the phase program. Students overwhelmingly expressed satisfaction with the 4-week phases. Among the benefits cited were the following:

1. The phases deal with real science. (cognitive aspect)
2. Each phase is short enough to "endure" if they become dissatisfied with the material.
3. It is possible to increase (or decrease) the amount of science taken during the term. In support of this point, of 18 students interviewed in one section during the fourth cycle of phases, eight had taken 4 science phases; six had taken 3 three phases; three had taken 2 phases and 1 had just taken 1 science phase.

4. A student could really make his own decisions.

Discussions with the Curriculum Developer in Science, the classroom teachers and the paraprofessional all indicate increased interest and enthusiasm on both their own parts and the students.

Innovation and creativity can be continuously incorporated each time a phase offering is repeated. Those offerings which do not appear to be effective can then be either modified or omitted. This has led to a higher level of program development than had previously been observed. Additionally, pre-planning an entire unit at one time apparently allows both the teacher and Curriculum Developer to focus more clearly on long range objectives.

SUMMARY

This is a completely revised program from that which had previously been observed. The current phase program appears to be more highly developed at this stage than the previous approach. This new arrangement seems to have stimulated enthusiasm in both the staff and the students. While no objective cognitive measure of the program has been attempted, there is reason to believe the new offerings provide greater promise than the earlier program. In addition to improved attitude, there now exists a tangible written set of units which can be continuously developed and reviewed.

Innovation and creativity can be continuously incorporated each time a phase offering is repeated. Those units which do not appear to be effective can then be either modified or omitted. This has led to a higher level of program development than had previously been observed. Additionally, pre-planning an entire unit at one time apparently allows both the teacher and Curriculum Developer to focus more clearly on long range objectives.

RECOMMENDATIONS

1. In view of the increased concern with content, it is suggested that pre and post test designs be developed for each phase offering.

2. Teacher and Curriculum Developer interpretations of student attitudes are essentially intuitive. It is suggested that they begin to rate each offering independently upon some objective criteria.

3. A review of the offerings for the first four phases indicates frequent repetition. While this may be appropriate for the present, it is suggested that they might establish some minimum number of new offerings (one per phase) each term in addition to the continuous modification of existing courses.

4. It may become necessary to set a minimum number of science electives to insure that each student takes some science phase.

5. In view of the feelings of success expressed by the tenth grade students interviewed, some thought might be given to a similar program in the eleventh grade.

APPENDIX E

BENJAMIN FRANKLIN

A REPORT ON

CLUSTER SOCIAL STUDIES PROGRAM, SPRING, 1971.

I. Introduction

This evaluation is based upon visits made on June 2 and June 8, and on classroom observations and interviews with teachers, the curriculum developer and program coordinator.

The Social Studies Program goals and objectives stated are:

1) To give students the experience of dealing with topics that meet their own concerns.
2) To assure growth in knowledge of how to dind answers to questions and problems outside of school, and growth in student ability to apply these processes.
3) To assure growth in students' real and felt ability to cope with problems.

II. Summary of Classroom Observations

A. June 2:

We observed a class of twelve students in a course entitled "Action for Better Building." Students generally seemed interested in their work and the teacher seemed helpful in giving individual attention to students in filling out a form called "Action in a Housing Problem." (See attached form.)

A second class of seven students was observed in a course of study called "Four Great Religions." A team-teaching discussion was conducted on the beliefs of Christianity and the various aspects of Christ's life. Most of the students actively participated in the discussion.

A third class of twelve students was observed in a course called "Marriage Customs." A discussion was held on a story previously read, "Goldflower," and the marriage conditions described in this Chinese family. The class also acted out a scene from the story depicting the trial of Goldflower's husband and father-in-law. Again the students seemed to be interested and really enjoyed the opportunity to express themselves.

B. June 8:

A class of four students was observed in a course entitled "Slavery." A brief classroom discussion was held on the different points of view expressed in various sources of information by different authors. An example was given on slavery as seen by a former slave and by a Southern white. Areas of conflict between authors were pointed out and explanations for differences were discussed. Students then completed a worksheet on slavery with the teacher giving individual attention where needed. (See attached form.)

C. In general:

Teachers and students were actively engaged in learning experiences consistent with the Social Studies Program goals and activities. The general classroom atmosphere was one in which student expression was encouraged and where student concerns and interests were the focal point of the classroom period.

III. Summary of Faculty Interviews

Teachers felt that the Cluster Program fostered a more relaxed atmosphere among teachers and students, thus, encouraging freedom of expression on the part of students and increased enthusiasm on the part of teachers. The flexibility of the program and the use of outside agencies and the visitation of such agencies also seemed to influence the students in taking a more active role in activities considered more relavant to them.

Teachers felt that the level of communication between Cluster teachers and traditional teachers could be improved.

The program coordinator felt that the staff level of performance was high and as a team they worked well together. He also noted that the students seemed to be more involved in the program and that class cutting was reduced. He felt that the program also had a positive influence on the regular school and its staff.

IV. Overall Impressions

The Social Studies Program seems to be accomplishing its goal, to change student attitudes toward school, by demonstrating the relevancy of school related topics with everyday experiences encountered by the students outside of school.

V. Recommendations

A communication system should be instituted whereby regular Social Studies teachers and Cluster teachers could regularly exchange ideas and conduct ongoing sharing relationships.

More basic reading skill building activities should be incorporated into the Social Studies Program. Activities such as vocabulary building, comprehension, location of information, selection and evaluation of information, using several sources to solve problems, etc., could be incorporated without affecting the interest and motivation levels of the students.

Construct a list of specific skills the program is attempting to develop in the students and use this as a student evaluation tool.

Compile a list of topics and sources of information that have proven to be reasonably successful and which merit consideration for further development. Make list available to traditional teachers.

Construct and use a course evaluation instrument to be used regularly by students, in commenting on the interest levels, practicability levels and performance levels of themselves and/or teachers in the various Social Studies course topics.

Robert F. Mizerak
Social Studies Consultant

APPENDIX F

TEACHING & LEARNING RESEARCH CORP.

TEACHER'S QUESTIONNAIRE

1. What do you feel are the main differences between the Cluster Program and the regular program in achieving academic objectives?

2. To what extent do you feel that the Cluster Program is assisting students at Benjamin Franklin High School?

3. To what extent have the curricular materials which have been developed in the Cluster Program been helpful to you as a teacher at Benjamin Franklin?

4. What has been the effect of the Cluster Program on the school spirit at Benjamin Franklin?

5. If the Cluster Program were expanded, would you want to participate in it?

Cont'd...

TEACHING & LEARNING

TEACHER'S QUESTIONNAIRE - Page 2

6. Which kind of students would you recommend for inclusion in the Cluster Program?

7. Do you feel that there has been adequate communication between the Cluster Staff and the rest of the High School staff?

8. What do you feel are the most effective features of the Cluster Program?

9. What are the least effective features of the Cluster Program?

10. What recommendations would you make about changes in the Cluster Program?

APPENDIX G

BENJAMIN FRANKLIN CLUSTER PROGRAM

STAFF QUESTIONNAIRE

Position _____

	YES	NO	UNSURE
1. Do you feel satisfied with the development of new curricular materials within the Cluster program?	____	____	_____
2. Are you generally satisfied with the method of screening 9th grade students to become the Cluster population?	____	____	_____
3. The Cluster program has no provisions for a cutting check system. Do you feel it would benefit the program to have a system established?	____	____	_____
4. Do you think that your experience in the Cluster program has increased your understanding of problem pupils?	____	____	_____

5. Are you satisfied with the guidance and psychological services rendered to the program? _____

   If no, please state your criticism _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

	YES	NO	UNSURE
6. Since admission in the program do you feel students have improved attitudes toward learning?	____	____	_____
7. Since admission in the program do you feel that the students' attitudes about themselves have improved?	____	____	_____
8. Do you feel there is a successful communication about the innovation curriculum in the Cluster Program with the curriculum departments of Benjamin Franklin High School?	____	____	_____

9. Plans currently are being made to have the entire ninth grade at Benjamin Franklin H. S. function as mini-schools.

   a) What impact do you feel this will have on your program? _____

   _____

   _____

   _____

   _____

   _____

Cont'd...

TEACHING & LEARNING

BENJAMIN FRANKLIN CLUSTER PROGRAM

STAFF QUESTIONNAIRE (Cont'd)

b) What role would you like to assume in this reorganization?

10. Could you comment on the relative importance of traditional versus affective education?

11. Describe briefly your role in the Benjamin Franklin Cluster Program.

12. What suggestions do you have about improving the program for next year?

13. What feature of the program are you most satisfied with?

14. What feature of the program are you least satisfied with?

TEACHING & LEARNING

APPENDIX H

BENJAMIN FRANKLIN CLUSTER PROGRAM

STUDENT QUESTIONNAIRE I

Please place a check (✓) before the answer that seems to apply best to you.

NAME_____

GRADE_____

1. For me, the Cluster Program was:

_____a. very helpful
_____b. somewhat helpful
_____c. not very helpful
_____d. not helpful at all

2. Compared to my friends who are not in the Cluster Program, I learned:

_____a. about as much as they did
_____b. not as much as they did
_____c. much more than they did

3. If the Cluster Program was available next year, I

_____a. would
_____b. would not

like to be enrolled in it.

4. The Cluster Program is best for:

_____a. very smart students
_____b. average students
_____c. students who are having trouble with schoolwork

5. Because I was in the Cluster Program this year, next year I will probably do:

_____a. better than this year
_____b. about the same as this year
_____c. a little bit worse than I did this year

6. As a student I consider myself to be:

_____a. way above average
_____b. somewhat above average
_____c. about average
_____d. somewhat below average
_____e. way below average

APPENDIX I

BENJAMIN FRANKLIN CLUSTER PROGRAM

STUDENT QUESTIONNAIRE #2

Name_____

Please place a check (✓) before the answer that seems to apply best to you.

Grade_____

1. As compared to other teachers, the teachers in the cluster program seem to be:
   _____ a) more interested in me
   _____ b) about as interested in me
   _____ c) less interested in me

2. Worksheets tend to be:
   _____ a) more helpful than textbooks
   _____ b) about as helpful as textbooks
   _____ c) less helpful than textbooks

3. When I have an assignment I:
   _____ a) usually try to finish it
   _____ b) sometime try to finish it
   _____ c) usually don't try to finish it

4. Drawing up a contract with a teacher:
   _____ a) helps me to know what to do
   _____ b) doesn't usually help me to know what to do
   _____ c) never seems to help me know what to do

5. My teachers:
   _____ a) know me very well
   _____ b) know me fairly well
   _____ c) don't know me at all

6. If I have a problem my guidance counselor has been:
   _____ a) a big help to me
   _____ b) somewhat helpful
   _____ c) not very helpful

7. If I have a personal problem I would most likely talk about it to:
   _____ a) one of my teachers
   _____ b) my guidance counselor
   _____ c) the Cluster psychologist

8. In a course where I sit down and rap with other students I usually feel that:
   _____ a) I learn a lot about myself and others
   _____ b) I learn some things that are helpful
   _____ c) It is not as helpful as other courses

Cont'd...

BENJAMIN FRANKLIN CLUSTER PROGRAM

STUDENT QUESTIONNAIRE #2 (Cont'd.)

9. In most courses I feel:
   _____ a) free to say what I think
   _____ b) that I have nothing much to say
   _____ c) afraid to say what I think

10. My Cluster classes are:
   _____ a) too difficult for me
   _____ b) just about right for me
   _____ c) too easy for me

11. The courses offered in each phase are:
   _____ a) more interesting than the course descriptions
   _____ b) just about like course descriptions
   _____ c) not as interesting as the course descriptions

12. In learning new things, I feel the trips are:
   _____ a) very helpful
   _____ b) somewhat helpful
   _____ c) mostly a waste of time

13. If I am having a problem in class my teachers:
   _____ a) usually help me with my problem
   _____ b) sometimes help me with my problem
   _____ c) never help me with my problem

14. My social worker has:
   _____ a) made some contact with my parents
   _____ b) made no contact with my parents

15. If I am not very good in a subject I:
   _____ a) choose a course in that subject
   _____ b) choose courses in other subjects

16. The chance to choose my own program is:
   _____ a) not very important to me
   _____ b) somewhat important to me
   _____ c) very important to me

17. Since phasing has begun, my interest in school has:
   _____ a) increased very much
   _____ b) remained about the same
   _____ c) decreased somewhat

Cont'd...

BENJAMIN FRANKLIN CLUSTER PROGRAM

STUDENT QUESTIONNAIRE #2 (Cont'd.)

18. In courses where I work by myself I feel that I:
    _____ a) learn more than in a regular class
    _____ b) learn about as much as in regular classes
    _____ c) learn less than in regular classes

19. When my worksheet is returned to me by my teacher I usually:
    _____ a) learn a lot from the corrections
    _____ b) learn a little from the corrections
    _____ c) don't learn anything from the corrections

20. The courses I learn the most in are:
    1. _____
    2. _____
    3. _____

21. The courses I like the most are:
    1. _____
    2. _____
    3. _____

BENJAMIN FRANKLIN CLUSTER PROGRAM

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